

REMARKS

This application has been reviewed in light of the Office Action dated November 18, 2003. Claims 1-10 are pending, with Claim 1 as the only independent claim. Claims 1, 2, 7, and 8 have been amended as to matters of form only, and these amendments do not, in any way, narrow the scope of any of these claims. Claim 5 has been amended merely to correct a typographical error. Favorable reconsideration is requested.

The abstract of the disclosure was objected to for exceeding 150 words. In response, Applicants have amended the abstract so that it now includes fewer than 150 words and, therefore, withdrawal of this objection is respectfully requested.

Claim 1 was objected to because the phrase “the portion of the first part” recited in step c lacks proper antecedent basis. Applicants have amended *step b* in Claim 1 to provide proper antecedent basis for “the portion” recited in step c. Accordingly, withdrawal of this objection is respectfully requested.

Claims 7 and 8 were objected to because it is allegedly unclear whether the phrase “the circuit components” refers to “electronic components” recited in parent Claims 2 and 4, respectively. In response, Applicants have amended “the circuit components” in Claims 7 and 8 to read --the electronic components--. Accordingly, Applicants respectfully request withdrawal of these objections.

Claims 7 and 8 were also objected to because the phrase “a common heating step” is allegedly unclear. Without conceding the propriety of this objection, Applicants have changed the word “common” to --single-- and respectfully submit that this language

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clearly communicates that both bonding steps referred to in these claims occur in a single heating step. Accordingly, withdrawal of these objections is respectfully requested.

Claims 1, 5, 6, 9, and 10 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,239,683 (Roessler et al.) in view of JP 06293077A (Kodera). Claims 2, 3, 4, 7, and 8 were rejected under Section 103(a) as unpatentable over Roessler et al. in view of Kodera, and further in view of U.S. Patent No. 6,147,583 (Rinne et al.), and U.S. Patent No. 6,365,435 (Wang et al.). Applicants respectfully traverse these rejections and submit that independent Claim 1, together with the dependent claims, are patentable for at least the following reasons.

Claim 1 requires a method for making a circuit assembly which includes at least one magnetic device. The method includes providing first and second parts of a magnetic body and a substrate having first and second major surfaces. The substrate includes an aperture therethrough and a conductive coil extending peripherally around the aperture. The method also includes bonding the first part of the magnetic body to the first major surface of the substrate so that the first part overlies the aperture and a portion of the first part is exposed through the aperture. Claim 1 also requires applying adhesive material to the portion of the first part of the magnetic body exposed through the aperture. The method of Claim 1 further includes pressing the second part of the magnetic body through the aperture into contact with the adhesive on the first part and, under pressure, rotating the second part in relation to the first part in a reciprocating manner to spread the adhesive into a thin, uniform film. Additionally, the adhesive is cured without clamping to bond together the first and second parts.

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A feature of Claim 1 is the bonding of the first part of the magnetic body to the first major surface of the substrate so that the first part overlies the aperture and a portion of the first part is exposed through the aperture. Support for this feature can be found in the specification at least at page 3, last paragraph, which is described with reference to Figures 1-3B. (It is to be understood, of course, that the scope of Claim 1 is not limited to the details of this embodiment, which is referred to only for purposes of illustration.)

This feature is wholly absent from Roessler et al. and Kodera. With reference to Roessler et al., Applicants have only found disclosure in regarding bonding the first core half 160 to the second core half 162. See col. 5, line 66, to col. 6, line 32, and col. 6, line 58, to col. 7, line 20. Applicants have found no disclosure relating to bonding either of the core halves 160 or 162 to the substrate 120. Kodera also is silent regarding this feature. Accordingly, neither Roessler et al. nor Kodera, taken alone or in combination, teach or suggest bonding a first part of a magnetic body to a first major surface of a substrate so that the first part overlies the aperture and a portion of the first part is exposed through the aperture, as required by Claim 1.

Another feature of Claim 1 is the curing of the adhesive without clamping to bond together the first and second parts. Support for this feature can be found in the specification at least at page 4, fourth paragraph, which is described with reference to Figure 1. The Office Action states that

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Roessler et al. do not teach a curing process to bond the first and second cores . . . however, . . . it would . . . have been obvious . . . to provide a curing process of the spreading adhesive of Roessler et al. after bonding the first and second cores either by heating or in a room temperature for bonding between the cores.

See the Office Action at page 5, first paragraph. However, Applicants point out that Claim 1 requires more than just curing, it requires curing *without clamping*.

Because the Office Action fails to provide evidence supporting the view that curing without clamping is obvious, Applicants respectfully submit that the Examiner is taking Official Notice of this alleged fact without the support of documentary evidence. See M.P.E.P. § 2144.03. "Official Notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of *instant* and *unquestionable* demonstration as being well-known." M.P.E.P. § 2144.03 A (emphasis added). Applicants respectfully traverse such Official Notice as not being capable of instant and unquestionable demonstration as being well-known. For one reason, as set forth at page 1, last paragraph of the specification, curing *with* clamping is a shortcoming of the prior art:

"To make a high quality device, the bond must be thin, uniform in thickness and durable. As a consequence, it has been necessary to clamp the ferrite parts together under pressure while the adhesive cures. This clamping process is time-consuming and typically requires manual intervention, thereby precluding automatic in-line assembly. Accordingly, there is a need for a fully automatic process for the assembly of circuits containing magnetic components."

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The present invention provides a fully automatic process by allowing curing *without* clamping. Accordingly, Applicants are entitled to documentary evidence with the next Office Action supporting the position taken in this Office Action that curing *without clamping* is obvious in light of Roessler et al., if this rejection is to be maintained. See M.P.E.P. § 2144.03 C.

For at least the above-discussed reasons, Applicants respectfully submit that Claim 1 is patentable. The other rejected claims in this application depend from Claim 1 and therefore, are patentable for at least the same reasons. Since each dependent claim also defines an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and the allowance of the present application.

Applicants' undersigned attorney may be reached by telephone at (973) 597-2500. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,

  
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